

# AIRPORT PLANS

The planning process for the Hollister Municipal Airport Master Plan has included several analytic efforts in the previous chapters, intended to project potential aviation demand, establish airside and landside facility needs, and evaluate options for improving the airport to meet those airside and landside facility needs. The planning process, thus far, has included the presentation of two draft phase reports (representing the first four chapters of the Master Plan) to the Planning Advisory Committee (PAC) and City of Hollister. A plan for the use of Hollister Municipal Airport has evolved considering their input. The purpose of this chapter is to describe in narrative and graphic form, the plan for the future use of Hollister Municipal Airport.

The implementation of the *Aviation and Transportation Security Act* of 2001 will need to be closely monitored throughout the implementation of this Master Plan. This law established the Transportation Security Administration (TSA) to administer transportation security nationally. As of the end of calendar year 2003, there was no formal rulemaking for general aviation airport security. However, industry groups had made a series of recommendations to the TSA for general aviation threat assessment and security standards for general aviation airports. This Master Plan has anticipated the potential for greater security scrutiny at general aviation airports in the future, especially those general aviation airports serving aircraft greater than 12,500 pounds, such as Hollister Municipal Airport. The TSA is implementing security provisions for air charter operations with aircraft over 12,500 pounds. For Hollister Municipal Airport, the Master Plan secu-



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rity enhancements focus on limiting vehicle and pedestrian access to the apron areas and aircraft operational areas.

## ***AIRFIELD PLAN***

The airfield plan for Hollister Municipal Airport focuses on meeting Federal Aviation Administration (FAA) design and safety standards, lengthening both runways, establishing precision and nonprecision instrument approach procedures, adding airfield taxiways, installing airfield lighting aids, and pavement strengthening. **Exhibit 5A** graphically depicts the proposed airfield improvements. The following text summarizes the elements of the airfield plan.

## **AIRFIELD DESIGN STANDARDS**

The FAA has established a variety of design criterion to define the physical dimensions of runways and taxiways, and the imaginary surfaces surrounding them that protect the safe operation of aircraft at the airport. FAA design standards also define the separation criteria for the placement of land-side facilities. As discussed previously in Chapter Three, FAA design criteria is a function of the critical design aircraft's (the most demanding aircraft or "family" of aircraft which will conduct 500 or more operations (take-offs and landings) per year at the airport) wingspan and approach speed, and in some cases, the runway approach visibility minimums. The Federal Aviation Administration (FAA) has estab-

lished the Airport Reference Code (ARC) to relate these factors to airfield design standards.

Hollister Municipal Airport is currently used by a wide range of general aviation piston-powered and turbine powered aircraft. These aircraft range from ARC A-I to ARC D-II on occasion. General aviation business jets are the most demanding aircraft to operate at the airport, due to their larger wingspans and higher approach speeds when compared with the remaining types of aircraft operating at the airport.

For the Master Plan, business jets within approach categories C and ADG II are expected to comprise the critical design aircraft through the planning period. Assigning ARC C-II to the ultimate design of airfield facilities at Hollister Municipal Airport provides for the operation of nearly all corporate aircraft on a regular basis at the airport. Even the Bombardier Global Express and Gulfstream V, the largest corporate aircraft, would be able to use the airport on a limited basis.

As the primary runway, Runway 13-31 and its associated taxiways will be designed to ARC C-II. ARC B-II will be applied to Runway 6-24.

**Table 5A** summarizes the ultimate ARC C-II and B-II airfield safety and facility dimensions for Hollister Municipal Airport. These standards were considered in the planned improvements of the existing airport site, to be discussed in greater detail later within this chapter.







**TABLE 5A****Planned Airfield Safety and Facility Dimensions (in feet)**

	<b>Runway 13-31</b>		<b>Runway 6-24</b>
Airport Reference Code (ARC)	C-II		B-II
Runway			
Width	100		100
Length	7,000		3,373
Runway Safety Area (RSA)			
Width	400		150
Length Beyond Runway End	1,000		300
Object Free Area (OFA)			
Width	800		500
Length Beyond Runway End	1,000		300
Precision Object Free Area (POFA) – <i>Runway 31 only</i>			
Width	800		N/A
Length Beyond Runway End	200		N/A
Obstacle Free Zone (OFZ)			
Width	400		400
Length Beyond Runway End	200		200
Runway Centerline To:			
Hold Line	250		200
Parallel Taxiway Centerline	400		240
Edge of Aircraft Parking	500		250
	<b>Runway 13</b>	<b>Runway 31</b>	<b>Runways 6 and 24</b>
Approach Visibility Minimums	One Mile	½ Mile	Visual
Runway Protection Zone (RPZ)			
Inner Width	500	1,000	500
Outer Width	1,010	1,700	700
Length	1,700	2,500	1,000
Approach Obstacle Clearance	34:1	50:1	20:1
Taxiways			
Width	35		
Safety Area Width	79		
Object Free Area Width	131		
Taxiway Centerline To:			
Parallel Taxiway/Taxilane	105		
Fixed or Moveable Object	65.5		
Taxilanes			
Taxilane Centerline To:			
Parallel Taxilane Centerline	97		
Fixed or Moveable Object	57.5		
Taxilane Object Free Area	115		

Source: FAA Advisory Circular 150/5300-13, *Airport Design*, Change 7, FAR Part 77, *Objects Affecting Navigable Airspace*, FAA Advisory Circular 150/5340-1F, *Marking Of Paved Areas On Airports*

## **AIRFIELD DEVELOPMENT**

### **Runways**

The airfield plan for Hollister Municipal Airport provides for the airport to fully comply with ARC C-II design standards on Runway 13-31, and the design requirements applicable to a precision Instrument Landing System (ILS) approach to Runway 31. To fully comply with ARC C-II design standards and to allow a future Medium Intensity Approach Lighting System with Runway Alignment Indicator Lighting (MALSR) to be installed behind the Runway 31 end, the airfield plan shifts Runway 13-31, 330 feet to the northwest. This will involve relocating the existing Runway 31 threshold and Taxiway A to the northwest, to allow for the ARC C-II RSA and OFA to be fully developed on existing airport property behind the Runway 31 end. The MALSR is required for the future ILS approach, and the area surrounding the MALSR must be controlled by the airport.

Since the existing paved area behind the relocated Runway 31 threshold, including a portion of the lead-in taxiway, will be designated for the RSA and OFA, the pavement behind the relocated Runway 31 threshold (along with those portions of Taxiway A) will be removed and most likely used as base material for new airfield pavement development. To maintain the existing runway length of 6,350 feet when Runway 13-31 is shifted to the northwest, the Runway 13 end and

Taxiway A will be shifted 330 feet northwest.

As mentioned, the plan does not retain the pavement areas, including the existing lead-in taxiway, behind the relocated Runway 31 end. The FAA does not recognize lead-in taxiways, does not require paved overruns or stopways, and does not require the RSA be paved. If these pavement areas would be designated as paved overruns, or stopways, the FAA would require that the RSA and OFA extend beyond the end of the paved overrun or stopway. The airport could not meet RSA and OFA standards if the lead-in taxiway behind the Runway 31 threshold was designated as a paved overrun. Furthermore, the existing lead-in taxiway behind the Runway 31 threshold is contrary to federal design standards. Any paved surface used for aircraft landing and/or departure operations must be marked accordingly and meet federal design standards. The lead-in taxiway does not meet these standards.

A 650-foot extension is planned for Runway 13-31 and Taxiway A. This will extend the runway to 7,000 feet, the FAA recommended runway length for Hollister Municipal Airport. At 7,000 feet, Runway 13-31 would be able to better serve the business and corporate users of the airport by allowing for greater payloads in the warm summer months.

Shifting and extending Runway 13-31 to the northwest places the Runway 13 Runway Protection Zone (RPZ) out-

side existing airport property. The acquisition of approximately 23 acres of land is needed to protect the RPZ from incompatible development.

The Runway 13-31, Taxiway A, and Runway 13-31 to Taxiway A connecting taxiway pavements are planned to be strengthened to 75,000 dual wheel loading (DWL). The existing pavement strength is estimated at 45,000 DWL. This is insufficient to meet the needs of the larger corporate aircraft operating at the airport. Aircraft weighing more than these planned pavement strength ratings may use the airport on occasion. Prior to their use, an evaluation of the number of annual operations which can be conducted should be determined. The number of operations by heavier aircraft should be closely maintained.

The Runway 6 threshold is planned to be relocated approximately 223 feet west, the maximum extent possible without obstructing the Runway 6 visual approach surface. This allows for an increase in the Runway 6-24 length from 3,150 feet, to 3,373 feet. Obtaining the additional 223 feet of pavement will require remarking a portion of the 750-foot lead-in taxiway behind the Runway 6 end. The remainder of Runway 6 lead-in taxiway and 450-foot lead-in taxiway behind the Runway 24 end will be removed. Similar to the lead-in taxiway behind the Runway 31 end, these lead-in taxiways will be removed and the area behind the runway ends designated for RSA and OFA. These lead-in taxiways are contrary to federal design standards. Any paved surface used for aircraft landing and/or departure operations must be marked accordingly

and meet federal design standards. The lead-in taxiways do not meet these standards. The entrance taxiways at each runway end will be re-aligned perpendicular to each runway end. This is the preferred alignment for entrance taxiways, as it allows pilots to view both the approach and departure areas.

The Runway 6 and Runway 24 RPZs extend beyond existing airport property. The acquisition of approximately six acres of land to the west is planned to protect the Runway 6 RPZ. The acquisition of three acres of aviation easements is planned for the Runway 24 RPZ. The aviation easement allows the existing land within the easement to continue to be owned and controlled by the property owner, while providing the City of Hollister an assurance that this area would not be redeveloped with incompatible land uses.

## **Taxiways**

For an ILS approach at an ARC C-II airport, FAA design standards require a runway centerline to parallel taxiway centerline separation distance of 400 feet. Taxiway A is currently 300 feet from the Runway 13-31 centerline. The airfield plan relocates Taxiway A 100 feet east, to meet these design requirements. The existing Taxiway A surface would be removed and most likely used in the base material for the new taxiway.

A full-length parallel taxiway is planned 400 feet west of Runway 13-31, as required by ARC C-II design

standards. This taxiway will support future landside needs west of Runway 13-31.

A full-length parallel taxiway is planned 240 feet north of Runway 6-24, as required by ARC B-II design standards. This taxiway is intended to support landside activity located north of Runway 6-24. The acquisition of approximately 11 acres of land north of the Runway 24 end is needed to allow for federal and state grant funding of the taxiway. The 11-acre acquisition will also ensure adequate protection of the Federal Aviation Regulation (F.A.R.) Part 77 transitional surfaces for Runway 6-24.

A glider staging area is planned north of Runway 6-24, east of Runway 13-31. Designed in conjunction with the glider operator at the airport, this staging area is planned and designed to allow for the ground handling of glider aircraft off of the active runway.

**Exhibit 5A** depicts the ultimate taxiway designations, assuming the new parallel taxiways. Holding aprons are planned for the Runway 6, 24, and 13 ends, and west of the Runway 31 end. A bypass taxiway is planned east of the Runway 31 end, since there is not sufficient area between the relocated Taxiway A and aircraft parking apron for a holding apron. Holding aprons and bypass taxiways allow aircraft to prepare for departure off the active taxiway and allow aircraft ready for departure to bypass without waiting on the aircraft preparing for departure.

## **Instrument Approaches**

A precision instrument approach with Category I (CAT I) minimums is planned for the Runway 31 end. At the present time, only the instrument landing system (ILS) provides Category I (CAT I), one-half mile visibility and 200-foot cloud ceiling minimum, capabilities. While the FAA is implementing the Wide Area Augmentation System (WAAS) to enhance the standard global positioning system (GPS) signal for both vertical and lateral navigational approach capabilities, the current capabilities of the WAAS do not allow for CAT I approach minimums. Current lateral/vertical navigation (LNAV) approaches typically have a 400-foot cloud ceiling and 1.5 statute-mile visibility minimum. GPS approaches with CAT I standards are not envisioned until after 2015. A GPS LNAV approach is planned for the Runway 13 end. Since CAT I approach capability is planned for Runway 31 end, lower approach minimums are not needed on Runway 31.

Two rows of T-hangars and a conventional hangar located along the east side of the main apron obstruct the Runway 13-31 precision instrument approach transitional surface. The T-hangars are shown for removal and replacement in the west T-hangar area. The conventional hangar is planned to be removed and ultimately replaced with a new facility that does not obstruct the FAR Part 77 transitional surface.

The RPZ for the Runway 31 instrument approach will extend over the existing CDF facilities. Once the CDF facilities are relocated west of Runway 13-31, the existing CDF facilities should be removed and this area not redeveloped, except outside the limits of the RPZ.

The existing visual approaches to Runways 6 and 24 are retained, with no plans for instrument approaches to Runway 6-24. Instrument approaches would require a 34:1 approach surface, compared with the existing 20:1 approach surface. A 34:1 approach surface cannot be obtained on Runway 6-24 without further shortening the runway to clear San Felipe Road and terrain to the west.

The existing T-hangars and executive hangars south of the Runway 24 end and the Gavilan College hangar obstruct the Runway 6-24 transitional surface. The former Army National Guard Armory is expected to obstruct this surface as well. While the Army National Guard Armory is proposed to be acquired and removed, the T-hangars, executive hangars, and Gavilan College hangar are expected to remain. The FAA will need to perform further analysis to determine if these buildings require obstruction lighting. Once these buildings have reached the end of their useful life, they should be removed and not replaced.

### **Lighting Aids and Markings**

The airfield plan includes the installation of a Medium Intensity Approach

Lighting System with Runway Alignment Indicator Lights (MALSR) at the Runway 31 end. The MALSR will be required to achieve CAT I standards on the ILS approach. The ILS to Runway 31 will require the replacement of the existing Runway 13-31 Medium Intensity Runway Lighting (MIRL) with High Intensity Runway Lighting (HIRL).

Runway End Identifier Lights (REILs) are planned for the Runway 13, Runway 6, and Runway 24 ends. REILs aid in the identification of the runway end at night and during low visibility conditions. A Precision Approach Path Indicator (PAPI) is planned for each runway end. A PAPI-4 is planned for each runway end. The PAPI-4 is designed for large aircraft use. The PAPI-4 will replace any existing approach surface lighting. Medium Intensity Taxiway Lighting (MITL) is planned for all existing and future taxiways.

Precision runway markings are planned for Runway 31. Nonprecision markings are planned for Runway 13. Visual markings are planned for Runway 6-24.

### **Other Facilities**

The Automated Weather Observation System (AWOS) is retained west of Runway 13-31, north of Runway 6-24; however, the AWOS is ultimately planned to be relocated. While the AWOS is being installed in 2004, it will need to be relocated prior to developing the west parallel taxiway. The City does not currently own the



property where the AWOS must ultimately be located. An AWOS provides automated weather observations and reporting.

The segmented circle and lighted wind cone will ultimately need to be relocated for the development of the north parallel taxiway and to meet ARC C-II RSA and OFA design standards. The segmented circle and lighted wind cone are planned to be relocated near the ultimate AWOS location.

A service road is planned to extend between the existing aircraft parking apron/terminal area to the west T-hangar area. This roadway is intended to extend around the airfield operations area and provide a year-round roadway for use by airport maintenance, security, aircraft refueling vehicles, and firefighting vehicles. This enhances airfield safety by allowing for airport vehicles to access portions of the airport without crossing active runways and taxiways.

## ***LANDSIDE PLAN***

The landside plan for Hollister Municipal Airport has been devised to safely, securely, and efficiently accommodate potential aviation demand. The landside plan provides for the development of new commercial general aviation facilities, aircraft storage facilities, expanded fuel storage, and helicopter parking areas.

The landside plan continues to provide for access to the airfield from areas outside airport property, as envisioned in the *Hollister Airport Area Develop-*

*ment Plan*. Chapter 13.28, *Hollister Municipal Airport Access Permits*, of the City of Hollister Code grants access rights to the airport from properties located adjacent to the airport through the granting of an access permit. The Planning Advisory Committee (PAC) has suggested that Chapter 13.28 be amended to allow the uses proposed by the Air Park Business Center and Hollister Airport Terminal Business Park. The proposed Hollister Airport Terminal and Business Park is located northeast of the Runway 13-31/Runway 6-24 intersection, off existing airport property. This area is planned for a variety of general aviation businesses, aircraft storage hangars, terminal facilities, and a museum. This area will have access to the airfield via the future parallel taxiway north of Runway 6-24 and relocated Taxiway A.

The Airpark Business Center is located off airport along the southwest airport boundary. Access to the airfield will be via a diagonal taxiway developed along the airport's southwestern boundary and a taxiway extending to the south parallel with Runway 13-31. While the latter taxiway is located on airport property, it may not be eligible for federal or state funding assistance since it serves users located outside the airport boundary. The diagonal taxiway is assumed to be eligible since it also serves the west T-hangar area. The remaining apron and taxiway development outside the existing airport boundary will not be eligible for federal or state funding assistance.

With the exception of future T-hangar facilities, most structural improve-

ments at Hollister Municipal Airport are anticipated to be developed privately, as has been done historically in the past. The capital improvement program (Chapter Six) identifies the infrastructure improvements needed at the airport to support development, and the federal and state funding assistance available to City of Hollister to make those improvements.

Several areas of the airport are planned for future hangar development. Within the existing terminal area, hangar development is planned along the eastern edge of the aircraft parking apron. Hangar development is proposed for an undeveloped parcel near Gavilan College. Corporate hangar or fixed based operator (FBO) hangars could be developed in this area. Corporate aviation facilities are characterized by co-located hangar and office complexes for corporate-owned aircraft storage, maintenance, and administration. Fixed based operators (FBO) are providers of commercial general aviation services such as aircraft maintenance. An additional aircraft storage hangar location is available through the redevelopment of the southern-most conventional hangar location near the T-hangars. The existing hangar is planned to be replaced with a new hangar that does not obstruct the precision instrument approach transitional surface.

Individual hangar parcels for aircraft storage hangar development only are designated for the area south of Airport Drive, currently occupied by a series of 1940 vintage office and hangar facilities. This area is only viable for aircraft storage hangar development

due to its limited airfield access and taxiways which can only support smaller aircraft within ADG I (wing-spans less than 49 feet).

The area east of Skyline Drive is redeveloped for corporate aviation facilities. Armory Drive, Mars Drive, Astro Drive, and Mercury Drive would all eventually be closed in favor of establishing the development parcels. All existing 1940's vintage office buildings would be removed. Only Skyline Drive and Airport Drive would be retained to maintain existing public access routes to the hangar facilities along the main apron. A new interior access road along the eastern airport boundary would provide access to the Elk Lodge and other corporate aviation parcels east of the access taxiway. Access to the airfield would be developed from Taxiway B.

Individual hangar parcels and expansion of the west T-hangars is retained in the area south of Runway 6-24, west of Runway 13-31. Eight individual hangar parcels and an additional 90 T-hangars could be developed in this area. Corporate and/or FBO hangars cannot be developed in this area as the planned taxilanes can only support smaller aircraft within ADG I. An area north of the Runway 6 end could support an additional 90 T-hangars. The area east of Runway 13-31 could support an additional 90 T-hangars.

A final area for corporate hangar development is reserved for the area east of the Runway 13 end. Ten development parcels are shown. These could support a variety of FBO and/or corporate uses. A future apron with area

for FBO development is reserved west of Runway 13-31, along the future west parallel taxiway.

As a result of upgrading Runway 31 with a CAT I precision instrument approach, approximately 100 feet of the west portion of the main apron would be lost, including two existing rows of aircraft tiedowns. This is the result of the ARC C-II aircraft parking limit standard and FAR Part 77 primary surface object clearing standards. Most of the CDF facility aircraft parking area would be lost for the same reasons.

A helicopter hardstand is planned on the north side of the existing aircraft parking apron. The hardstand will provide a segregated area for helicopter operations. In contrast to a helipad, the hardstand can only be approached by a hover taxi. A hardstand cannot be used for takeoff and landing. With the hardstand, helicopters must approach to a runway or taxiway surface prior to parking at the hardstand. A helipad is planned west of Runway 13-31, along a future apron area.

An area for the development of an airport maintenance facility and above-ground fuel storage area is reserved along San Felipe Road, south of the existing T-hangars. Once the CDF facilities are moved west of Runway 13-31, this area could be redeveloped for this purpose. Since the Runway 31 RPZ would extend across most of this area, this area is not readily available for hangar development.

## ***NOISE EXPOSURE ANALYSIS***

Aircraft sound emissions are often the most noticeable environmental effect an airport will produce on the surrounding community. If the sound is sufficiently loud or frequent in occurrence, it may interfere with various activities or otherwise be considered objectionable.

To determine the noise-related impacts that the proposed development could have on the environment surrounding Hollister Municipal Airport, noise exposure patterns were analyzed for both existing airport activity conditions and projected long-term activity conditions.

The Community Noise Exposure Level (CNEL) was used in this study to assess aircraft noise. CNEL is defined as the average A-weighted sound level as measured in decibels (dB), during a 24-hour period. A 5dB penalty applies to noise events occurring in the evening (7:00 p.m. to 10:00 p.m.), while a 10 dB penalty applies to noise events occurring at night (10:00 p.m. to 7:00 a.m.). CNEL is a summation metric which allows objective analysis and can describe noise exposure comprehensively over a large area. The 65 CNEL contour has been established as the threshold of incompatibility, meaning that noise levels below 65 CNEL are considered compatible with underlying land uses.

Since noise decreases at a constant rate in all directions from a source,

points of equal CNEL noise levels are routinely indicated by means of a contour line. The various contour lines are then superimposed on a map of the airport and its environs. It is important to recognize that a line drawn on a map does not imply that a particular noise condition exists on one side of the line and not on the other. CNEL calculations do not precisely define noise impacts. Nevertheless, CNEL contours can be used to: (1) highlight existing or potential incompatibilities between airport and any surrounding development; (2) assess relative exposure levels; (3) assist in the preparation of airport environs land use plans; and (4) provide guidance in the development of land use control devices, such as zoning ordinances, subdivision regulations and building codes.

The noise contours for Hollister Municipal Airport have been developed from the Integrated Noise Model (INM), Version 6.1. The INM was developed by the Transportation Sys-

tems Center of the U.S. Department of Transportation at Cambridge, Massachusetts, and has been specified by the FAA as one of the two models acceptable for federally-funded noise analysis.

The INM is a computer model which accounts for each aircraft along flight tracks during an average 24-hour period. These flight tracks are coupled with separate tables contained in the database of the INM which relate to noise, distances, and engine thrust for each make and model of aircraft type selected.

Computer input files for the noise analysis assumed implementation of the proposed airfield plan. The input files contain operational data, runway utilization, aircraft flight tracks, and fleet mix as projected in the plan. **Table 5B** summarizes runway use percentages used in the noise analysis. These percentages were derived from discussions with airport staff.

<b>TABLE 5B</b>				
<b>Noise Model Input: Runway Use Percentages</b>				
<b>Aircraft</b>	<b>13</b>	<b>31</b>	<b>6</b>	<b>24</b>
Single Engine Piston	5.00%	45.00%	5.00%	45.00%
Multi-Engine Piston	5.00%	45.00%	5.00%	45.00%
Turboprop	5.00%	45.00%	5.00%	45.00%
Light/Medium Turbojet	5.00%	45.00%	5.00%	45.00%
Large Turbojet	5.00%	95.00%	0.00%	0.00%
Source: Coffman Associates Analysis				

**Table 5C** summarizes the mix of aircraft and their operations used in the noise modeling. This mix was derived

from examining transient aircraft records maintained by the FAA, and information derived from airport staff.



**TABLE 5C****Noise Model Input: Aircraft Operations**

<b>Operations By Type</b>	<b>Single Engine</b>	<b>Multi- Engine</b>	<b>Turboprop</b>	<b>Turbojet</b>	<b>Helicopter</b>	<b>Totals</b>
<b>Existing Conditions</b>						
Local	19,482	3,438	0	0	0	22,920
Itinerant	30,655	3,213	70	270	172	34,380
Total	50,137	6,651	70	270	172	57,300
<b>Long Term</b>						
Local	44,064	7,776	0	0	0	51,840
Itinerant	68,218	6,043	1,555	1,555	389	77,760
Total	112,282	13,819	1,555	1,555	389	129,600

Source: Coffman Associates Analysis

The aircraft noise contours generated using the aforementioned data for Hollister Municipal Airport are depicted on **Exhibit 5B**, Existing Noise Exposure, and **Exhibit 5C**, Projected Long Term Noise Exposure. For existing activity levels, the 65 CNEL noise contour remains almost entirely within the existing airport property line, or over undeveloped land. When considering long term forecast activity at the airport, a portion of the Long Term 65 CNEL contour extends beyond the western airport boundary; however, this land area is planned for compatible uses.

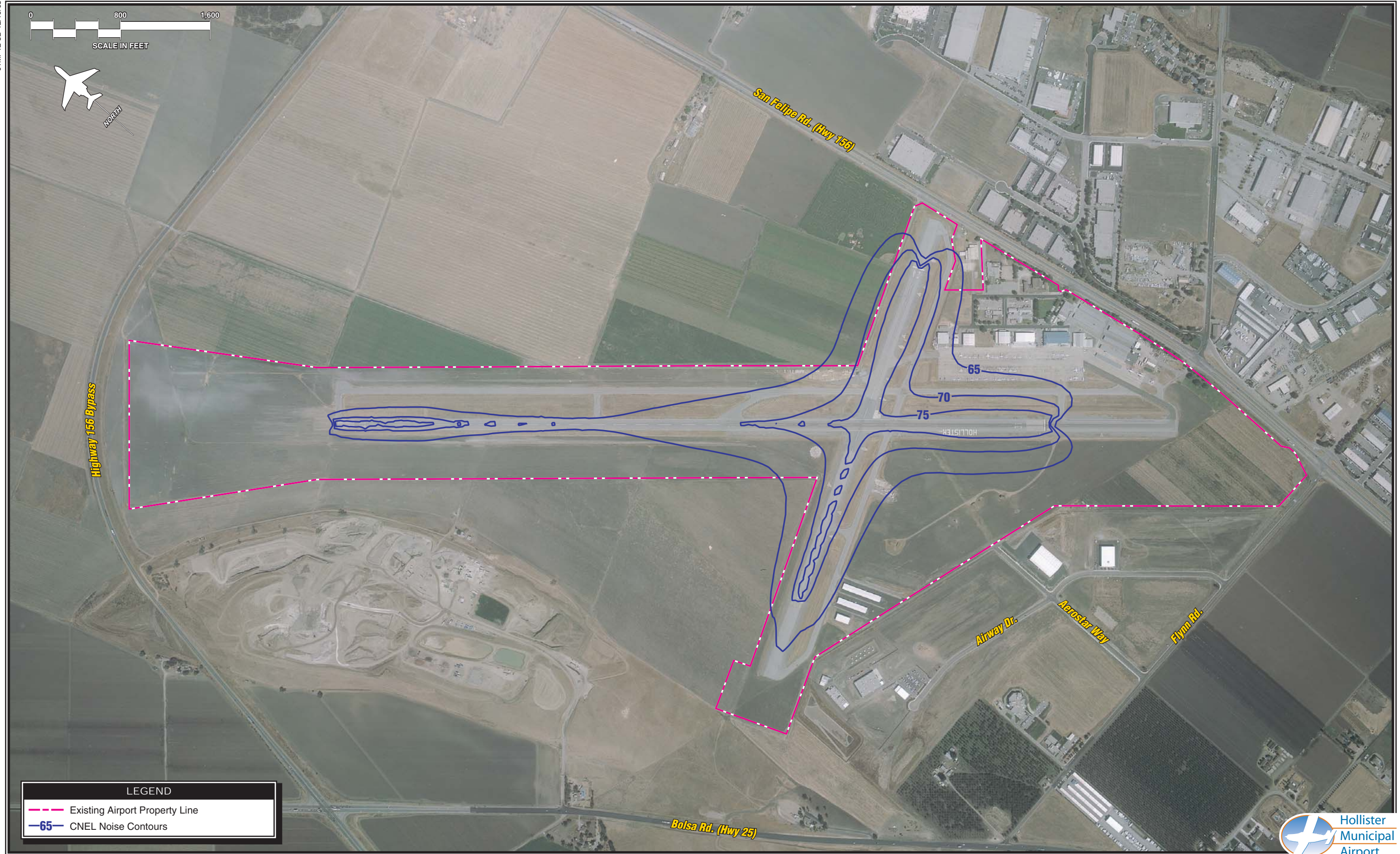
## **ENVIRONMENTAL EVALUATION**

The protection and preservation of the local environment are essential concerns in the Master Planning process. Now that a program for the use and

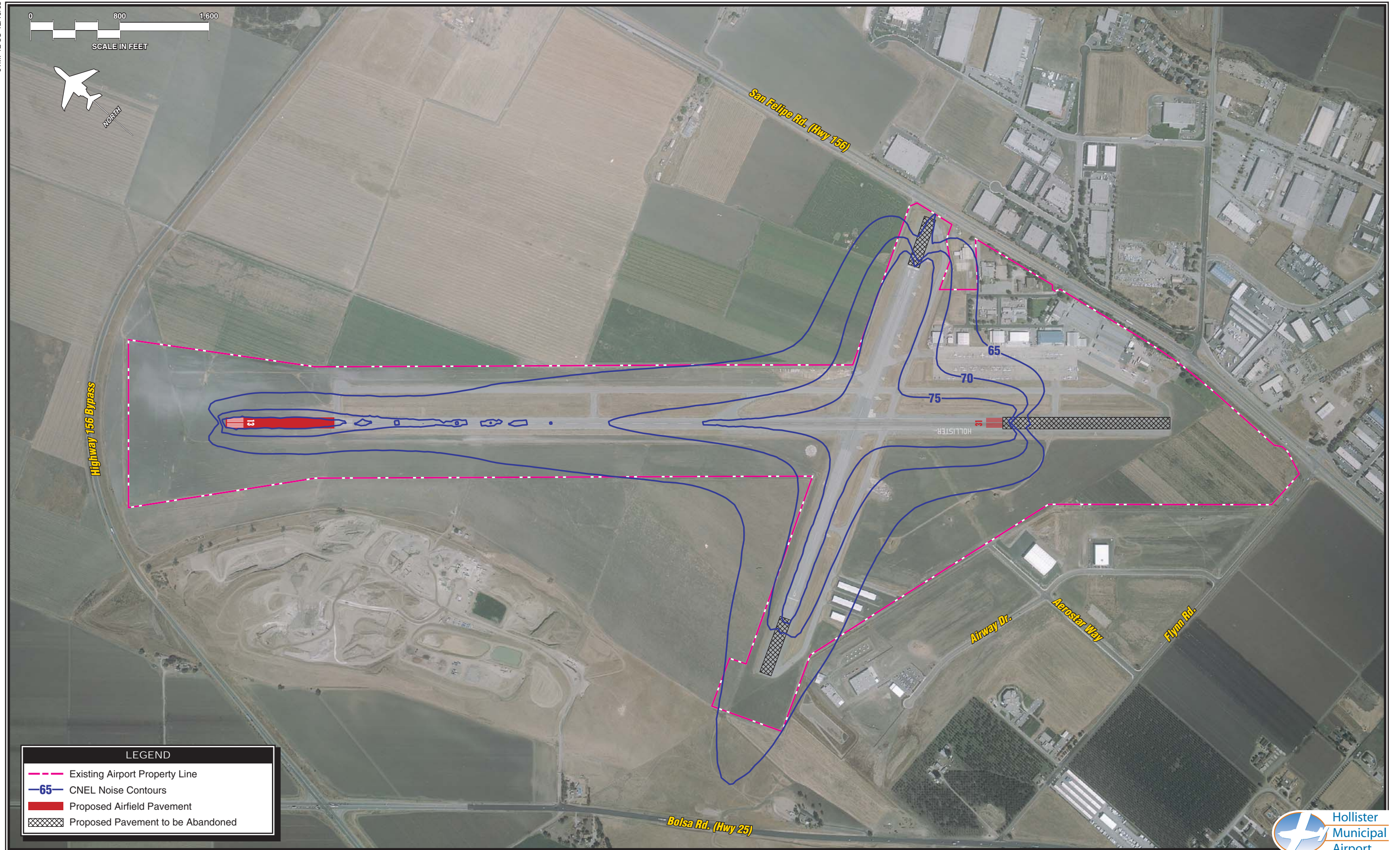
development of Hollister Municipal Airport has been finalized, it is necessary to review environmental issues to ensure that the program can be implemented in compliance with applicable environmental regulations, standards, and guidelines.

Once the airport begins receiving federal funding, improvements planned for Hollister Municipal Airport will require compliance with the *National Environmental Policy Act (NEPA)* of 1969, as amended. Many of the improvements will be categorically excluded and will not require further NEPA documentation; however, some improvements may require further NEPA analysis and documentation. As detailed in *FAA Order 5050.4A, Airport Environmental Handbook*, compliance with NEPA is generally satisfied with the preparation of an Environmental Assessment (EA). In cases where a categorical exclusion is issued, environmental issues such as











wetlands, threatened or endangered species, and cultural resources are further evaluated during the federal, state, and/or local permitting processes. This Master Plan and any major improvements will also be subject to the requirements of the *California Environmental Quality Act* (CEQA). As many CEQA requirements are similar to those addressed within NEPA, impacts can be expected to be similar for both.

Several factors are considered in a formal environmental document such as an EA or an EIS, which are not included in an environmental evaluation. These factors include details regarding the project location, historical perspective, existing conditions at the airport, and the purpose and need for the project. This information is available within the Master Plan document. A formal environmental document also includes the resolution of issues/impacts identified as significant during the environmental process.

This section is intended to supply a preliminary review of environmental issues that would need to be analyzed in more detail within the NEPA or the permitting process. Consequently, this environmental evaluation only identifies potential environmental issues and *does not* address mitigation or the resolution of environmental impacts. Each of the specific impacts categories outlined in *FAA Order 5050.4A* are addressed. The following provides a discussion of each environmental resource category outlined in *FAA Order 5050.4A*.

An Environmental Impact Report (EIR) was prepared in 1999, in con-

formance with CEQA, for the proposed Hollister Airport Terminal Business Park. The 1999 EIR provided information for various sections of this evaluation and is referenced within those sections.

## **COMPATIBLE LAND USE**

Federal Aviation Regulation (F.A.R.) Part 150 recommends guidelines for planning land use compatibility within various levels of aircraft noise exposure. As the name indicates, these are guidelines only. F.A.R. Part 150 explicitly states that determination of noise compatibility and the regulation of land use are purely local responsibilities. In addition, *Advisory Circular 150/5200-33* identifies land uses that are incompatible with safe airport operations because of their propensity for attracting birds or other wildlife, which in turn results in an increased risk of aircraft strikes and damage. Finally, F.A.R. Part 77 regulates the height of structures within the vicinity of the airport.

Currently the airport does not have an identified problem with wildlife strikes, and the proposed improvements will not provide any new wildlife attractants; therefore, an increased risk of aircraft strikes is not anticipated. Development of the proposed airport improvements will not result in the introduction of any new obstructions to the F.A.R. Part 77 surfaces. Existing buildings that obstruct the FAR Part 77 surfaces will require further evaluation from the FAA. As discussed above, the existing projected



Long Term noise contours do not impact any incompatible land uses.

## **SOCIAL IMPACTS**

These impacts are often associated with the relocation of residents or businesses or other community disruptions. Implementation of proposed projects within the Master Plan will require acquisition of approximately 193 acres of prime and unique farmland. According to the Hollister General Plan, the land to the west of the airfield is already planned for light industrial land use; therefore, the land is not protected by *Farmland Protection Policy Act (FPPA)*. To the northwest, the land proposed to be acquired is planned for agricultural land use. Acquisition of this prime farmland will not directly convert farmland to non-agricultural use. This area will be utilized as a runway protection zone (RPZ) and will not be developed; therefore, the land use will not be changed. Coordination with the United States Department of Agriculture (USDA) may be required for further compliance.

Compliance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (URARPAPA) will be required. *FAA Order 50.50.4A* provides that where the relocation or purchase of a residence, business, or farmland is involved, the provisions of the URARPAPA must be met. The Act requires that landowners, whose property is to be purchased, be compensated fair market value for their property.

The proposed development and associated land acquisition are not anticipated to divide or disrupt an established community, interfere with orderly planned development, or create a short-term, appreciable change in employment.

## **INDUCED SOCIOECONOMIC IMPACTS**

These impacts address those secondary impacts to surrounding communities resulting from the proposed development, including shifts in patterns of population growth, public service demands, and changes in business and economic activity to the extent influenced by the airport development.

Significant shifts in patterns of population movement or growth, or public service demands are not anticipated as a result of the proposed development. It could be expected, however, that the proposed development would potentially induce positive socioeconomic impacts for the community over a period of years. The airport, with expanded facilities and services, would be expected to attract additional users. It is also expected to encourage tourism, industry and trade, and to enhance the future growth and expansion of the community's economic base. Future socioeconomic impacts resulting from the proposed development would be primarily positive in nature.

## AIR QUALITY

The U.S. Environmental Protection Agency (EPA) has adopted air quality standards that specify the maximum permissible short-term and long-term concentrations of various air contaminants. The National Ambient Air Quality Standards (NAAQS) consist of primary and secondary standards for six criteria pollutants which include: Ozone (O<sub>3</sub>), Carbon Monoxide (CO), Sulfur Dioxide (SO<sub>2</sub>), Nitrogen Oxide (NO), Particulate matter (PM<sub>10</sub>), and Lead (Pb). Various levels of review apply within both NEPA and permitting requirements. For example, an air quality analysis is typically required during the preparation of a NEPA document if enplanement levels exceed 3.2 million enplanements or general aviation operations exceed 180,000.

Hollister Airport is located in San Benito County, which currently meets federally-mandated air quality standards of attainment for all criteria pollutants. However, San Benito County does not meet standards set forth by the California Clean Air Act (CCAA). According to an environmental impact report (EIR) completed in 1999 for the proposed Hollister Airport Business Park, San Benito County is in non-attainment (CCAA) for O<sub>3</sub>. As outlined within *1050.1D, Policies and Procedures for Considering Environmental Impacts*, state and local air quality requirements must be considered. Section 176c of the CAA, as amended, requires that federal actions conform to the appropriate Federal or State air quality plans.

Further coordination with the Monterey Bay Unified Air Pollution Control District and the California Air Resource Board is suggested to determine conformity with CCAA.

Air quality impacts during construction of airport improvements are anticipated to be less-than-significant with the use of best management practices (BMPs).

## WATER QUALITY

Water quality concerns associated with airport expansion most often relate to domestic sewage disposal, increased surface runoff and soil erosion, and the storage and handling of fuel, petroleum, solvents, etc.

Construction of the proposed improvements will result in an increase in impermeable surfaces and a resulting increase in surface runoff. During the construction phase, the proposed development may result in short-term impacts on water quality. Temporary measures to control water pollution, soil erosion, and siltation through the use of best management practices (BMPs) should be used.

The airport will need to comply with current National Pollution Discharge Elimination System (NPDES) operations permit requirements. With regard to construction activities, the airport and all applicable contractors will need to obtain and comply with the requirements and procedures of the construction-related NPDES General Permit, including the preparation

of a *Notice of Intent* and a *Stormwater Pollution Prevention Plan*, prior to the initiation of product construction activities.

## **SECTION 4(f) LANDS**

These include publicly-owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or any land from a historic site of national, state, or local significance. The proposed development will not require the use of Section 4(f) lands.

## **HISTORICAL AND CULTURAL RESOURCES**

As discussed in Chapter One of this Master Plan, Hollister Municipal Airport was once a Navy Air Auxiliary Station (N.A.A.S. Hollister), in operation from 1941 until 1946. Within this time, various structures were built to support the operation of the base. Today, some of these buildings are still standing and are used for a variety of aviation-related nonaviation-related purposes. These buildings are showing significant deterioration and a recent building assessment determined they would need significant maintenance in order to restore them to good condition. A review of the National Register of Historic Places did not identify any historic buildings on airport property that would be affected by the proposed airport improvements.

These buildings do meet the age requirement criteria for listing within the National Register of Historic

Places; however, other criteria, such as a significance in American history, have not been determined. Further coordination with the State Historic Preservation Office may be needed to determine whether a historical buildings survey is required.

The relocation of existing roads to the northeast and the construction of parallel taxiways will disturb previously undisturbed land; therefore, coordination with the State Historic Preservation Officer may be required to determine the possible need of a cultural resource survey.

## **THREATENED OR ENDANGERED SPECIES AND BIOLOGICAL RESOURCES**

An Environmental Impact Report (EIR) was completed for the Hollister Airport Terminal Business Park in September of 1999. Within this EIR, a review of the *California Natural Diversity Data Base* (CNDDDB) was conducted and a survey was completed to determine the presence of Federal or State listed threatened or endangered species, or their habitat. Species of special concern were also reviewed, as impacts to these species may be considered significant under the California Environmental Quality Act (CEQA).

Many Federal and State species with special status were either identified in the area, are known to live in the area, or have habitat in the area. **Table 5D** depicts these species.

**TABLE 5D****Special Status Species with Habitat in the Vicinity**

Species	Status	Potential for Occurrence
San Joaquin Kit Fox ( <i>Vulpes macrotis mutica</i> )	Federally listed endangered, California listed threatened	Possible, project site within known range
California Tiger Salamander ( <i>Ambystoma californiense</i> )	California species of special concern	No
Western Spadefoot Toad ( <i>Scaphiopus hammondi</i> )	California species of special concern	No
California Red-Legged Frog ( <i>Rana aurora draytonii</i> )	Federally listed endangered, California species of special concern	No
Southwestern Pond Turtle ( <i>Clemmys marmorata pallida</i> )	California species of special concern	No
San Joaquin Whipsnake ( <i>Masticophis flagellum</i> )	California species of special concern	Possible
Northern Harrier ( <i>Circus cyaneus</i> )	California species of special concern	Observed, no nesting habitat on the site
Ferruginous Hawk ( <i>Buteo regalis</i> )	California species of special concern	Observed, winter foraging habitat present
Golden Eagle ( <i>Aquila chrysaetos</i> )	California species of special concern, California fully protected species	Observed, no nesting habitat on the site
Merlin ( <i>Falco columbianus</i> )	California species of special concern	Observed, winter foraging habitat present
Prairie Falcon ( <i>Falco mexicanus</i> )	California species of special concern	Possible, foraging habitat present; no nesting habitat on site
Burrowing Owl ( <i>Athene cunicularia</i> )	California species of special concern	Possible, California ground squirrels present
California Horned Lark ( <i>Eremophila alpestris actia</i> )	California species of special concern	Possible, foraging habitat present; nesting habitat not expected
Loggerhead Shrike ( <i>Lanius ludovicianus</i> )	California species of special concern	Observed, no nesting habitat on the site
Source: Hollister Airport Business Park Draft EIR, September, 1999		



According to the biological study, the results of which are outlined in the previous table, the kit fox is the only species that would require further surveys to be completed in order to determine if this species does indeed, occur in this area. A full protocol-level survey was conducted between October 19 and November 4, 1998, per the request of the U.S. Fish and Wildlife Service (USFWS), to determine the status of the kit fox at the proposed business park site. There was no kit fox observed during the protocol-level surveys.

Further consultation with the USFWS may be required to determine the validity of the previous survey. In addition, coordination with the California Fish and Wildlife Service may be required to determine if further information is required regarding the state species of special concern.

## **WATERS OF THE U.S. INCLUDING WETLANDS**

There are no wetlands or waters of the U.S. located in the project area; therefore, no impacts are anticipated.

## **FLOODPLAINS**

According to the Federal Emergency Management Agency (FEMA) flood insurance rate maps, (FIRM) Hollister Municipal Airport is not located within a floodplain.

## **WILD AND SCENIC RIVERS**

According to the National Park Service's list of Wild and Scenic Rivers, there are no wild or scenic rivers located within the vicinity of the proposed development.

## **FARMLAND**

The *Farmland Protection Policy Act (FPPA)* authorizes the Department of Agriculture to develop criteria for identifying the effects of federal programs on the conversion of farmland to nonagricultural uses. Farmland protected by the FPPA is classified as either unique farmland, prime farmland (which is not already committed to urban development or water storage), or farmland which is of state or local importance (as determined by the appropriate government agency and the Secretary of Agriculture).

Direct impacts to farmland are those which permanently remove the property from even the potential for agriculture production. Direct impacts are primarily considered to occur in those areas not being directly converted, but which would no longer be capable of being farmed because access would be restricted.

According to the Natural Resource Conservation Service (NRCS), the majority of the soil surrounding the airport qualifies as prime or unique farmland under the Farmland Protection

Policy Act (FPPA). As discussed previously within the social impacts category, the proposed acquisition area to the west of the airfield is already planned for light industrial use; therefore, the land is not protected by FPPA. To the northwest, the land proposed to be acquired is planned for agricultural use; however, the acquisition of this land will not directly convert prime farmland to nonagricultural use. This area will be utilized as a runway protection zone (RPZ) and will not be developed; therefore, the land use will not be changed. Coordination with the United States Department of Agriculture (USDA) may be required to determine if further compliance with FPPA is required.

## **ENERGY SUPPLY AND NATURAL RESOURCES**

An increase in energy demand is anticipated as a result of the proposed development; however, this increase is not expected to be large enough to have a dramatic affect on existing energy production facilities or energy resource supplies.

## **LIGHT EMISSIONS**

A variety of lighting aids are available at Hollister Municipal Airport to facilitate airport identification, approaches, and landings, both at night and during adverse weather conditions. A rotating beacon (flashing green and white lights) identifies the location of the airport at night. The airport is also equipped with a lighted wind cone, in combination with a seg-

mented circle. Both runways have medium intensity runway lighting (MIRL). Runway 24 is equipped with visual approach slope indicators (VASIs) and runway end identifier lights (REILs). Runway 13 is equipped with precision approach path indicators (PAPIs) and runway end identifier lights (REILs). Runway 31 is equipped with precision approach path indicators (PAPIs) and runway end identifier lights (REILs).

Implementation of the proposed project would require the installation of additional lighting for the new taxiways and additional/extended lighting for the runway extension project. Additional lighting will also be installed at the proposed T-hangers sites and the CDF Air Attack Base. The impact of the additional lighting is not anticipated to be significant, as the area surrounding the airport is used for agriculture and industrial uses.

## **SOLID WASTE**

Increases in the amount of solid waste generated by the airport are expected as a result of the proposed development and overall growth in the aviation industry. These increases are not expected to place an undue burden on the existing landfill that accepts airport waste.

## **SUMMARY**

The Master Plan for Hollister Municipal Airport has been developed in co-

operation with the Planning Advisory Committee, interested citizens, and City of Hollister. It is designed to assist the City in making decisions relative to the future use of Hollister Municipal Airport as it is maintained to meet the air transportation needs for the region.

Flexibility will be a key to the plan since activity may not occur exactly as

forecast. The Master Plan provides the City of Hollister with options to pursue in marketing the assets of the airport for community development. Following the general recommendations of the plan, the airport can maintain its viability and continue to provide air transportation services to the region.